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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Case No. HYZ-041)

1805

Receipt 6/11/95 for CAR FR

In re Application of:

Bruce L. Frank et al.

Examiner:

2/6/96 Serial No.: 08/467,397

Group Art

Filed: June 6, 1995

Unit: 1802

For: OLIGONUCLEOTIDES SPECIFIC FOR  
HEPATITIS B VIRUS

RECEIVED

DEC 27 1995

GROUP 1800

\*\*\*\*\*  
I hereby certify that this correspondence is being  
deposited with the United States Postal Service as  
first class mail in an envelope addressed to:  
Assistant Commissioner For Patents, Washington, D.C.  
20231 on the date set forth below.

November 27, 1995

By Ann-Louise Kerner

Date of Signature  
and of Mail Deposit

Ann-Louise Kerner, Ph.D.  
Registration No. 33,523  
Attorney for Applicants

\*\*\*\*\*

LETTER REQUESTING CORRECTION OF FILING RECEIPT

Assistant Commissioner For Patents  
Washington, D.C. 20231

Attention: Application Processing Division  
Customer Correction Branch

Dear Sir:

It is requested that a corrected Filing Receipt (Form PTO-103X) for the above-referenced Patent Application be issued, as the Filing Receipt received by Applicants incorrectly identifies the some of the inventors' city of residence. The filing receipt reads:

2-12-96

"J. Charles Craig, Welwyn Garden C, United Kingdom", but should read "J. Charles Craig, **Welwyn Garden City**, United Kingdom";

"John S. Mills, Welwyn Garden C, United Kingdom", but should read "John S. Mills, **Welwyn Garden City**, United Kingdom";

"Andrew Slade, Welwyn Garden C, United Kingdom", but should read "Andrew Slade, **Welwyn Garden City**, United Kingdom"; and

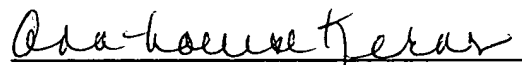
"Raymond Jupp, Welwyn Garden C, United Kingdom", but should read "Raymond Jupp, **Welwyn Garden City**, United Kingdom".

Copies of the executed Declarations and Powers of Attorney which were filed with the Response to Notice to File Missing Parts on September 26, 1995 are enclosed to support this correction.

No fee is due. However, please charge any fees which may be due or credit any overpayments associated with this correspondence to Deposit Account No. 12-0448.

Respectfully submitted,

LAPPIN & KUSMER



Ann-Louise Kerner, Ph.D.  
Registration No. 33,523  
Attorney for Applicants

200 State Street  
Boston, MA 02109  
Tel. (617) 330-1300

Date: November 27, 1995

210-1000  
10-1-95

FILING RECEIPT



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTORNEY DOCKET NO.	DRWGS	TOT CL	IND CL
08/467,397	06/06/95	1802	\$5,180.00	HYZ-041	12	206	6

LAPPIN & KUSMER  
200 STATE STREET  
BOSTON MA 02109

This receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Application Processing Division's Customer Correction Branch within 10 days of receipt. Please provide a copy of the Filing Receipt with the changes noted thereon.

Applicant(s)

BRUCE L. FRANK, MARLBOROUGH, MA; PETER C. ROBERTS, HOLLISTON, MA; JOHN GOODCHILD, WESTBOROUGH, MA; J. CHARLES CRAIG, WELWYN GARDEN C, UNITED KINGDOM; JOHN S. MILLS, WELWYN GARDEN C, UNITED KINGDOM; ANDREW SLADE, WELWYN GARDEN C, UNITED KINGDOM; ROBERT E. KILKUSKIE, SHREWSBURY, MA; NOEL A. ROBERTS, HARPENDEN, UNITED KINGDOM; RAYMOND JUPP, WELWYN GARDEN C, UNITED KINGDOM.

FOREIGN FILING LICENSE GRANTED 11/09/95

TITLE

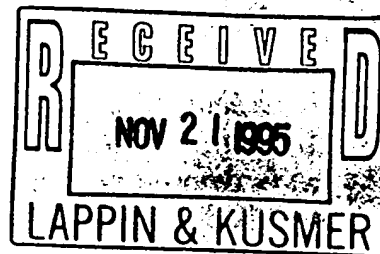
OLIGONUCLEOTIDES SPECIFIC FOR HEPATITIS B VIRUS

PRELIMINARY CLASS: 435

"CITY"  
should read  
"Welwyn Garden  
City"

DOCKETED  
PCM

12/1/95 Correct Filing Receipt



docketed  
12/1/95 - WK

**COPY**

**DECLARATION AND POWER OF ATTORNEY**  
**(Case No. HYZ-041)**

As below-named inventors, we hereby declare that:

Our residences, post office addresses and citizenship are as stated below next to our names.

We believe we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**OLIGONUCLEOTIDES SPECIFIC FOR HEPATITIS B VIRUS**

the specification of which (check only one):

☐ is attached hereto.

☒ was filed as United States Patent Application  
Serial No. 08/467,397  
on June 6, 1995  
and was amended  
on \_\_\_\_\_  
(if applicable)

☐ was filed as PCT Patent Application  
Serial No. \_\_\_\_\_  
on \_\_\_\_\_  
and was amended under PCT Article 19  
on \_\_\_\_\_  
(if applicable)

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the patentability of the claims of this application in accordance with Title 37, Code of Federal Regulations, Sections 1.56(a) and 1.56(b).

We hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me us on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

**PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS  
UNDER 35 U.S.C. §119:**

<b>COUNTRY</b> (if PCT indicate PCT)	<b>APPLICATION NUMBER</b>	<b>DATE OF FILING</b>	<b>PRIORITY CLAIMED UNDER 35 U.S.C. §119 (YES/NO)</b>
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We hereby claim the benefit under Title 35, United States code, § 120 of any United States application(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, § 112, we acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56 which occurred between the filing date of the prior applications and the national or PCT international filing date of this application:

**PRIOR U.S. APPLICATION OR PCT INTERNATIONAL APPLICATION(S)  
DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. § 120:**

<b>APPLICATION NUMBER</b>	<b>DATE OF FILING</b> (day, month, year)	<b>STATUS: (PATENTED, PENDING OR ABANDONED)</b>
---------------------------	---	---

**POWER OF ATTORNEY:** As named inventors, we hereby appoint the following attorneys and/or agents to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Mark G. Lappin	Reg. No. 26,618
Toby H. Kusmer	Reg. No. 26,418
Robert J. Schiller	Reg. No. 19,248
David Silverstein	Reg. No. 26,336
Ann-Louise Kerner	Reg. No. 33,523
Patricia McDaniels	Reg. No. 33,194
David F. Crosby	Reg. No. 36,400
Victor F. Lohmann, III	Reg. No. 33,951
Elizabeth A. Levy	Reg. No. 34,375
Richard A. Goldenberg	Reg. No. 38,895

the mailing address and telephone number of each of whom is LAPPIN & KUSMER, 200 State Street, Boston, Massachusetts 02109, and (617) 330-1300, and Darlene A. Vanstone, Reg. No. 35,729, the mailing address and telephone number of whom is Hybridon, Inc., One Innovation Drive, Worcester, Massachusetts 01605 and (508) 752-7000, with full power of substitution and revocation to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

Wherefore we petition that letters patent be granted to us for the invention or discovery described and claimed in the attached specification and claims, and hereby subscribe our names to said specification and claims and to the foregoing declaration, power of attorney, and this petition.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first joint inventor: Bruce L. Frank

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 374 Simpson Road, Marlborough, MA 01752  
Citizenship: United States of America  
Post Office Address: 374 Simpson Road, Marlborough, MA 01752

Full name of second joint inventor: Peter C. Roberts

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 18 Concord Street, Holliston, MA 01746  
Citizenship: United Kingdom  
Post Office Address: 18 Concord Street, Holliston, MA 01746

Full name of third joint inventor: John Goodchild

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 150 Ruggles Street, Westborough, MA 01581  
Citizenship: Great Britain  
Post Office Address: 150 Ruggles Street, Westborough, MA 01581

Full name of fourth joint inventor: J. Charles Craig

Inventor's signature JC Craig Date 8<sup>th</sup> August, 1995  
Residence: 54 Uplands, Welwyn Garden City, Herts AL8 7EW, U.K.  
Citizenship: United Kingdom  
Post Office Address: 54 Uplands, Welwyn Garden City, Herts AL7 7EW, U.K.

Full name of fifth joint inventor: John S. Mills

Inventor's signature John S Mills Date 8/8/95  
Residence: 11 Lowerfield, Welwyn Garden City, Herts AL7 3JT, U.K.  
Citizenship: United Kingdom  
Post Office Address: 11 Lowerfield, Welwyn Garden City, Herts AL7 3JT, U.K.

Full name of sixth joint inventor: Andrew Slade

Inventor's signature Andrew Slade Date 30/8/95  
Residence: 68 Ludwick Way, Welwyn Garden City, Herts AL7 3QG, U.K.  
Citizenship: United Kingdom  
Post Office Address: 68 Ludwick Way, Welwyn Garden City, Herts AL7 3QG, U.K.

Full name of seventh joint inventor: Robert E. Kilkuskie

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 40 Ireta Road, Shrewsbury, MA 01545  
Citizenship: United States of America  
Post Office Address: 40 Ireta Road, Shrewsbury, MA 01545

Full name of eight joint inventor: Noel A. Roberts

Inventor's signature Noel A Roberts Date 8/8/95  
Residence: 19 Elliswick Road, Harpenden, Herts AL5 4TP, U.K.  
Citizenship: United Kingdom  
Post Office Address: 19 Elliswick Road, Harpenden, Herts AL5 4TP, U.K.

Full name of ninth joint inventor: Raymond Jupp

Inventor's signature Raymond Jupp Date 8/8/95  
Residence: 29 Digswell Park Road, Welwyn Garden City, Herts AL8 7NW, U.K.  
Citizenship: United Kingdom  
Post Office Address: 29 Digswell Park Road, Welwyn Garden City, Herts AL8 7NW, U.K.

**COPY**

**DECLARATION AND POWER OF ATTORNEY**

**(Case No. HYZ-041)**

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We believe we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**OLIGONUCLEOTIDES SPECIFIC FOR HEPATITIS B VIRUS**

the specification of which (check only one):

☐ is attached hereto.

☒ was filed as United States Patent Application

Serial No. 08/467,397

on June 6, 1995

and was amended

on \_\_\_\_\_

(if applicable)

☐ was filed as PCT Patent Application

Serial No. \_\_\_\_\_

on \_\_\_\_\_

and was amended under PCT Article 19

on \_\_\_\_\_

(if applicable)

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the patentability of the claims of this application in accordance with Title 37, Code of Federal Regulations, Sections 1.56(a) and 1.56(b).

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UNDER 35 U.S.C. §119:**

<b>COUNTRY</b> (if PCT indicate PCT)	<b>APPLICATION NUMBER</b>	<b>DATE OF FILING</b>	<b>PRIORITY CLAIMED UNDER 35 U.S.C. §119 (YES/NO)</b>
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DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. § 120:**

<b>APPLICATION NUMBER</b>	<b>DATE OF FILING</b> (day, month, year)	<b>STATUS: (PATENTED, PENDING OR ABANDONED)</b>
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Patricia McDaniels	Reg. No. 33,194
David F. Crosby	Reg. No. 36,400
Victor F. Lohmann, III	Reg. No. 33,951
Elizabeth A. Levy	Reg. No. 34,375
Richard A. Goldenberg	Reg. No. 38,895

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We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first joint inventor: Bruce L. Frank

Inventor's signature Bruce L Frank Date 8/7/95  
Residence: 374 Simpson Road, Marlborough, MA 01752  
Citizenship: United States of America  
Post Office Address: 374 Simpson Road, Marlborough, MA 01752

Full name of second joint inventor: Peter C. Roberts

Inventor's signature PC Roberts Date 8/4/95  
Residence: 18 Concord Street, Holliston, MA 01746  
Citizenship: United Kingdom  
Post Office Address: 18 Concord Street, Holliston, MA 01746

Full name of third joint inventor: John Goodchild

Inventor's signature John Goodchild Date 8/8/95  
Residence: 150 Ruggles Street, Westborough, MA 01581  
Citizenship: Great Britain  
Post Office Address: 150 Ruggles Street, Westborough, MA 01581

Full name of fourth joint inventor: J. Charles Craig

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 54 Uplands, Welwyn Garden City, Herts AL8 7EW, U.K.  
Citizenship: United Kingdom  
Post Office Address: 54 Uplands, Welwyn Garden City, Herts AL7 7EW, U.K.

Full name of fifth joint inventor: John S. Mills

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 11 Lowerfield, Welwyn Garden City, Herts AL7 3JT, U.K.  
Citizenship: United Kingdom  
Post Office Address: 11 Lowerfield, Welwyn Garden City, Herts AL7 3JT, U.K.

Full name of sixth joint inventor: Andrew Slade

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 68 Ludwick Way, Welwyn Garden City, Herts AL7 3QG, U.K.  
Citizenship: United Kingdom  
Post Office Address: 68 Ludwick Way, Welwyn Garden City, Herts AL7 3QG, U.K.

Full name of seventh joint inventor: Robert E. Kilkuskie

Inventor's signature *Robert E. Kilkuskie* Date 8/4/95  
Residence: 40 Ireta Road, Shrewsbury, MA 01545  
Citizenship: United States of America  
Post Office Address: 40 Ireta Road, Shrewsbury, MA 01545

Full name of eight joint inventor: Noel A. Roberts

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 19 Elliswick Road, Harpenden, Herts AL5 4TP, U.K.  
Citizenship: United Kingdom  
Post Office Address: 19 Elliswick Road, Harpenden, Herts AL5 4TP, U.K.

Full name of ninth joint inventor: Raymond Jupp

Inventor's signature \_\_\_\_\_ Date \_\_\_\_\_  
Residence: 29 Digswell Park Road, Welwyn Garden City, Herts AL8 7NW, U.K.  
Citizenship: United Kingdom  
Post Office Address: 29 Digswell Park Road, Welwyn Garden City, Herts AL8 7NW, U.K.



Lappin & Kusmer  
220 State Street  
Boston, MA 02109


Date: 2-12-96

Application Number: 08/467397

Dear Applicant or Attorney of Record:

In response to your inquiry, dated 11-29-95,  
the PTO Patent Application Data Base:

- ( ) Allows 25 characters for the given name and 25 characters for the family name of applicants. As a result of this limitation, any names longer than the space allotted are truncated on the filing receipts which are generated from this data base. The entire name(s) of all applicant(s) will be taken directly from the application file after an application goes to issue.
- ( ) Allows 4 lines, equivalent to 70 characters, for the title of an application. As a result of this limitation any titles longer than the space allotted are truncated on the filing receipts, which are generated from this data base. A shortened title on a filing receipt does not affect the validity or securing of an application's filing date. The entire title will be taken directly from the application file after an application goes to issue.
- (✓) Allows fifteen characters for applicant's city of residence. As a result of this limitation, city names may be truncated on the filing receipt. A shortened city name of a filing receipt does not affect the validity or security of an application's filing date. The entire city name will be taken directly from the file when the application goes to issue.
- ( ) Allows only one character per space. Therefore, punctuation which is usually placed above or below a letter, such as an umlaut (""), cannot be included on the filing receipt. The deletion of such punctuation on a filing receipt does not affect the validity or security of an application's filing date.
- ( ) Allows seventeen characters for applicant's country of residence.

  
Corps Correction Examiner  
Application Processing Division  
(703) 308- 0928